Creating Accessible Digital Devices

We are well into the digital age. We all encounter technology on a daily basis. Entertainment to shopping to business uses technology in some capacity. As consumers, it’s important technology can be accessed by all.

Digital devices such as check-out pads from ATMs to restaurant menus to airport check-in are popular. These devices often make life convenient. At least convenient if a consumer can access it. However, just like websites and apps, if accessibility is not built into these devices, blind and visually impaired consumers have difficulty using them; and in most cases, cannot independently use them at all.

Millions of people in the US are blind and low vision, and this number is projected to increase by 25% each decade, according to the [National Institutes of Health](https://www.nih.gov/news-events/news-releases/visual-impairment-blindness-cases-us-expected-double-2050). This means millions of people encounter inaccessible devices daily. The only issue keeping these people from using such devices is the lack of accessibility. If accessibility were built into devices, there would be no issue. And it would broaden the market reach.

To ensure accessibility, here are [Universal Design](http://universaldesign.ie/What-is-Universal-Design/) standards to keep in mind when creating a digital device:

* Is the device easy to use if you can’t see or see well?
* Is a text-to-speech feature available? And if so, does the device have a headphone jack?
* Is the device physically accessible for people in wheelchairs or Little People or anyone who can’t stand upright?
* Is there a feature in place so deaf, deaf-blind and hard of hearing people can use it?
* Does the device meet with [WCAG](https://www.w3.org/WAI/standards-guidelines/wcag/)?

These digital devices often use touch screens. With no audio or tactile feature, these devices are useless to blind people without assistance. And often, blind people lose privacy when having to use assistance. It is possible to modify existing devices and create new devices that are fully accessible for blind and visually impaired consumers.

The [Storm Audio-Mav](https://www.spacepole.com/blog/2017/08/31/accessibility-kiosk-solutions-for-blind-and-partially-sighted/) is already being tested and used in the US. It’s tested positive with disabled consumers. People with visual impairments, print disabilities and fine motor disabilities have had success with Storm Audio-Mav. It allows the user to navigate the screen with an audio feature. It has an illuminated, tactile display. It can be fitted to existing devices or installed during the creation of new devices.

Companies with existing accessibility features for digital interfaces include:

* IBM
* SeePoint Technology
* F-Origin

Businesses often rely on the misconception that blind and low vision customers prefer human assistance. The reality is that blind and low vision consumers want equal access so they can participate just like their sighted peers. Providing accessible digital devices is not special treatment but merely affording equal access so devices can be used independently and privately just like the rest of the world.